



**NICE**  
ACTIMIZE

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**SURVEIL-X**<sup>TM</sup>

Intelligent Alerting

Reduce Surveillance False Positives  
and Maximize Compliance Resources

# Are False Positives Draining Your Resources?

Are high volumes of false alerts creating a strain on your compliance department and driving up costs? Are your compliance analysts spending too much time and effort reviewing, triaging and dispositioning false alerts? You're not alone.

In a recent NICE Actimize survey, 55% of respondents ranked false positives as one of their highest trade surveillance program concerns. Additionally, a separate PwC Market Abuse Survey revealed that of approximately 40 million trade and communication alerts generated across 17 financial institutions, only 1 in 12,000 alerts resulted in a STOR filing, a false positive rate of 99.99%. A separate NICE Actimize study on trade surveillance alerts concurred with this finding. For every 4,000 trade surveillance alerts, only 17 were found to be true positives, equating to a 99.6% false positive rate.

Are growing volumes of false alerts straining your compliance organization? Outdated, inflexible surveillance technology is likely a big contributing factor.



# How Legacy Solutions Contribute to High False Positives

Here are some of the ways legacy solutions contribute to high false positive rates:

## One Size Does Not Fit All

Many firms believe there's "safety in numbers," and as a result opt for off-the-shelf solutions simply because their peers are using them. The problem with this approach is that firms may have different market abuse definitions and typologies, and varying business activities and trading patterns. Additionally, there's limited ability for firms to customize or calibrate off-the-shelf analytic solutions to meet these specific requirements and needs. So at best, these solutions function as alert factories.

Another problem with out-of-the-box analytics is they rely on static thresholds. Static thresholds don't adapt to dynamic market conditions. For example, insider trading is often tied to large price swings and for this reason most surveillance systems employ thresholds to detect these changes. The problem with this approach is that static thresholds don't work in highly dynamic markets. Set the threshold too high and you risk missing something. Set it too low and you're deluged by false positives.

## Tuning is Time-consuming and Expensive

In an attempt to reduce false positive alerts, firms also often resort to self-tuning their trade and communication surveillance models internally. This can be effective in the short-term, but it's also very expensive and time-consuming. Models need to be updated and deployed in a simulation environment, which can be very costly, from both an IT and labor standpoint.

## Lexicon-based Surveillance is Limiting

Most communication surveillance systems today still use lexicon-based detection. The problem with lexicon-based solutions is they focus narrowly on finding words rather than understanding the true context of communications. As a result, they generate high numbers of false alerts. Compliance analysts can waste a lot of time reviewing communications that could otherwise be weeded out by a more intelligent system. For example, a large firm with more than 1 million monthly communication records could generate 50,000 alerts, and the large majority of these would be false.

Consider a lexicon detection model trained to alert when the words "trade" and "before" appear in close proximity. The system would alert on innocuous statements like, "Have you worked with e-Trade before?" – because the system is only searching for key words, instead of looking at the context of what was said.

## All Alerts Are Not Equal

Despite the fact that close to 99% of alerts can yield false positive results, compliance analysts have no choice but to treat all alerts equal. With legacy systems, there's no way to know which alerts are true or false, until you manually review them.

# Introducing SURVEIL-X Intelligent Alerting

## Reduce Surveillance False Positives and Maximize Compliance Resources

The first solution to leverage the advanced capabilities of self-service (DIY) analytics, Natural Language Processing and alert classification, **SURVEIL-X** significantly reduces false positive alerts. As a result, your compliance analysts can spend less time reviewing and dispositioning alerts and more time proactively investigating conduct risk and market abuse cases.

**SURVEIL-X** Intelligent Alerting uniquely combines:

**SURVEIL-X**'s self-service analytics tools enable agile customization and faster deployment of custom analytics. In addition to leveraging out-of-the-box analytics, your firm can easily develop, customize and self-tune models tailored to its own business requirements and needs.



Non-technical business analysts can effortlessly create models using a drag-and-drop interface, choosing from an expansive library of customizable templates or easily building their own rules from scratch. **SURVEIL-X** also features built-in integrations to data services and common business functions and calculations.

Testing and implementation of models is fast, easy and seamless. Your business analysts can deploy and promote analytic models into production with a single click, supported by fully auditable, built-in change control processes. Additionally, once rules are deployed into production, all alerts are delivered to analysts in the same case management interface for a consistent, seamless experience.

Instead of lexicons, **SURVEIL-X** uses advanced Natural Language Processing (NLP). **SURVEIL-X**'s NLP understands and analyzes communications in 45 different languages, automatically detecting people, places, products, companies, trades, assets classes and conversation topics to reveal what really happened. Fine-tuned for financial markets, it can even detect jargon indicative of market manipulation or collusive behavior.



**SURVEIL-X**'s NLP can reveal how people are interacting with one another, who they're interacting with and how frequently, what they're saying, and how they're saying it, by extracting context and sentiment from communications. This, in turn, can surface potential issues and provide an early warning to supervisors when behaviors aren't fitting normal patterns. Additionally, through machine learning, NLP even gets smarter over time.

Self-Development  
Tools for Model  
Customization

Natural Language  
Processing  
for Greater  
Understanding &  
Accuracy



## Alert Classification for Reducing Compliance Analyst Workload

In a recent side-by-side test, **SURVEIL-X**'s NLP helped produce positive alerts 92 percent of the time and reduced false positives (as compared to lexicon-based surveillance) by 78 percent.

Unlike legacy systems that treat all alerts the same, **SURVEIL-X** relies on supervised machine learning models that use alert attributes and dispositions of previous (historical) alerts to accurately assign confidence scores to new alerts (that indicate their likelihood of being true positives).



This automated classification of alerts relieves compliance analysts from having to review every single alert manually and saves time. Alerts can be sorted by their score so the highest ranking alerts appear at the top of work queue. Firms can also set thresholds for alerts they want analysts to look at (e.g. those with 50% or higher confidence score). Additionally, the system can auto escalate high scoring alerts (those with the greatest potential to be true positive), while allowing low risk alerts to either be closed automatically or moved to a separate folder or lower priority queue.

Additionally, **SURVEIL-X**'s alerts dashboard provides complete transparency and explainability. Compliance analysts can instantly drill down into alerts for detailed explanations of every alert prediction. They can view and understand all the factors that contributed to the alert's score, along with each factor's relative weight.

In a head-to-head comparison, this approach reduced the number of alerts that needed to be reviewed from 3,999 to 980, essentially cutting the compliance analysts workload by over 75 percent.

**SURVEIL-X**  
Screen Shot:  
Alert Details

**SURVEIL-X** Search... Advanced Ted Jones 14 NICE ACTIMIZE

Work Items > All Items > Alerts: CS\_25681(In Process) Item 1 of 23

Communication Work Item | Email Corporate | Step\* In Process | Owner: Compliance User 1 | Item Date: 06/15/2017 12:00AM

Summary Details		Description	
From	Cromwell Fraser <Cromwell.Fraser@niceactimize.com> NiceComplianceLOB <Nice.ComplianceLOB@nice.com>	Key-phrases	Cromwells Test Email, Good Morning, Great Solution, Helps Compliance Teams Satisfy Regulatory Requirem..
To	CC "Cory.Reynolds@dimensional.com" <Cory.Reynolds@...>	Concepts	Cromwells Test, Good Morning, Surveil-X, Great Solution, Compliance Teams, Regulatory Requirements, Financi...
BCC	N/A	Source ID	AB00012
Source	PST	Region	California
Companies mentioned	Nice Ltd, Nice Actimize	Country	USA
Name Mentioned	N/A	Team Name/LoB	Nice Compliance

April 2 2020 19:12

**Cromwell Fraser <Cromwell.Fraser@niceactimize.com> to NiceComplianceLOB <Nice.ComplianceLOB@nice.com>** Potential Priority Level ■■■■  
Confirmed Priority Level ■■■■

<sentence>The <nounphrase>Future</nounphrase> of <policy\_terms>Surveillance</policy\_terms> - <numbers>4</numbers> - <keyphrase>Holistic </policy\_terms>Surveillance</policy\_terms></keyphrase>

Good morning

I have heard that SURVEIL- X is a great solution that helps **Compliance** Teams satisfy regulatory requirements for financial service organizations. NICE has developed new capabilities that make investigating and supervising communications easier and more accurate than ever. With the latest cloud solution, we are working together with financial services organizations helping them to save **big money** by eliminating the overhead of maintaining and supporting an expensive on-premise solution. Firms are looking forward to seeing **guaranteed** results and help detect passing of **inside information** collusion events and attempted **compliance** avoidance

Many thanks

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PersonalBenefits Score 100  
Profits  
PHRASE("pull some great profit") near(Golf.Wochenende) ✓ X  
near(Golf.Wochenende) ✓ X  
Personal Account  
near(personal, account, distance=0) ✓ X  
near(Golf.Wochenende) ✓ X  
Disclosure Score 20  
Manipulation Score 850  
Market Manipulation Score 100  
Order Placement Score 10  
Product Details Score 40

## About SURVEIL-X

NICE Actimize's SURVEIL-X Holistic Conduct Surveillance offers unparalleled risk coverage for online brokers, buy-side and sell-side firms, insurance companies, crypto exchanges, regulators and more by enabling accurate detection and rapid, thorough investigation of market abuse, inappropriate sales practices, conduct risk and otherwise undetectable compliance risks to insulate firms from fines and reputational damage.

## About NICE Actimize

NICE Actimize is the largest and broadest provider of financial crime, risk and compliance solutions for regional and global financial institutions, as well as government regulators. Consistently ranked as number one in the space, NICE Actimize experts apply innovative technology to protect institutions and safeguard consumers and investors assets by identifying financial crime, preventing fraud and providing regulatory compliance. The company provides real-time, cross-channel fraud prevention, anti-money laundering detection, and trading surveillance solutions that address such concerns as payment fraud, cybercrime, sanctions monitoring, market abuse, customer due diligence and insider trading.

## Learn More

[www.niceactimize.com/compliance](http://www.niceactimize.com/compliance)

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